vitroprime™ Ultra-Low Attachment, U-Bottom, 96-Well Plate

TheWell BIOSCIENCE

Premium U-bottom cell culture plate for 3D spheroids.

Premium low-attachment surface coating for 3D cultures

Excellent for spheroid generation and culture, organoid and tumoroid cultures, and suspension cultures.

Reduced cell adhesion

Unparalleled surface coating that prevents cell attachment, supporting consistent and rapid spheroid formation.

Uniform surface treatment

Homogeneous coating across wells that ensures experimental reproducibility and enables high-throughput and drug-screening applications.

Supports automated imaging systems

Works seamlessly with imaging platforms including, Incucyte, Molecular Devices, and more.

The **VitroPrime™ Ultra-Low Attachment, U-bottom, 96-Well Plate** features a unique surface treatment that prevents cell adhesion, enabling spheroid formation and the creation of advanced 3D models, such as organoids and tumoroids. Designed with a uniform surface coating across wells, the VitroPrime™ Ultra-Low Attachment Plate ensures experimental consistency that enables drug screening and high-throughput applications.

When used with the VitroGel® hydrogel system, achieve an easier and more consistent spheroid invasion.

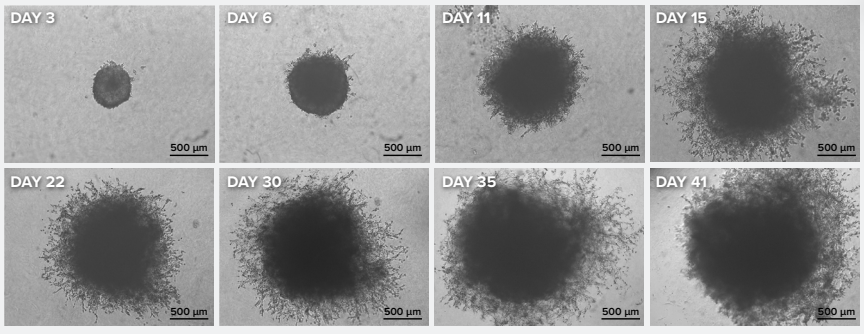

Figure 1. Spheroid invasion assay using the VitroPrime™ Ultra-Low Attachment Plate and VitroGel® Hydrogel Matrix.

U87-MG glioblastoma cells were resuspended in basal medium with 10% fetal bovine serum. Twenty microliters (20 µL) of cell suspension were added to the VitroPrime™ Ultra-low Attachment, U-bottom, 96-Well Plate. The cultures were incubated overnight at 37°C to allow spheroid formation. VitroGel® Hydrogel Matrix was combined with serum, and 40 µL of the mixture was added to the spheroid, followed by a 15-minute incubation at room temperature. The images were obtained with the Zeiss Microscope at 2.5X magnification.

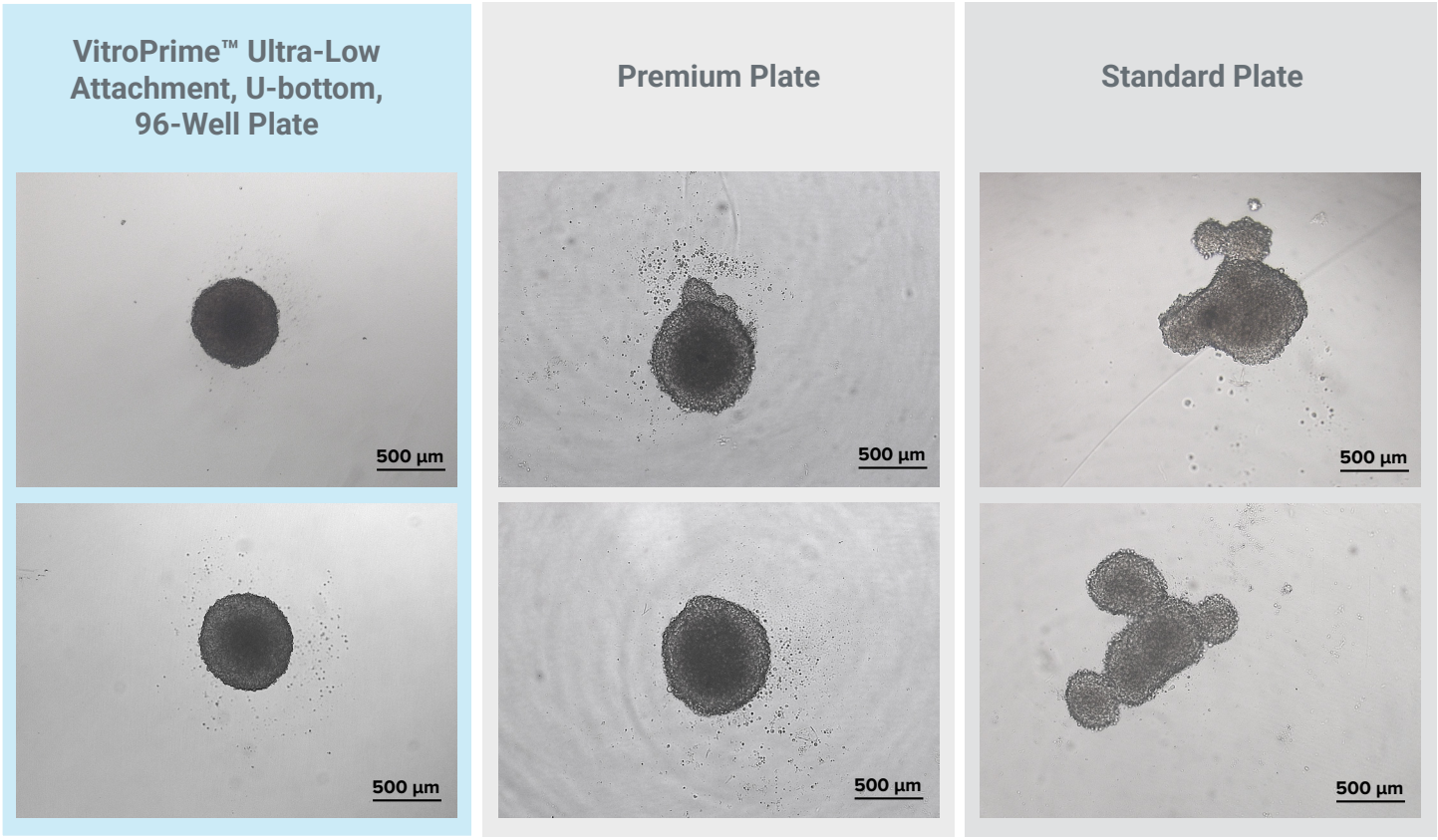

Figure 2. Comparison of spheroid formation between VitroPrime™ Ultra-Low Attachment, U-Bottom, 96-Well Plate and 2 commercially available ultra-low attachment plates. The glioblastoma cells in the VitroPrime™ Ultra-Low Attachment, U-bottom, 96-well Plate formed a single spheroid, with no residual cells observed on the edges of the plate (Fig. 2, first column). However, cells in the commercially available plates failed to form round-shaped spheroids, which is crucial when performing spheroid invasion assays (Fig. 2, second and third columns).

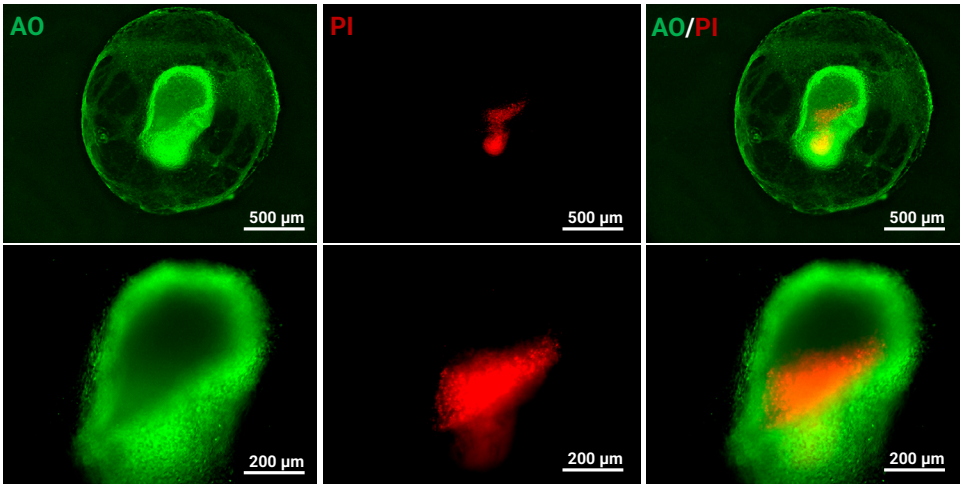

Figure 3. EMT GBM Tumoroid Viability
U87-MG GBM cells (1 x 10^6 cells/mL) were resuspended in basal medium with the supplement system. Twenty microliters (20 µL) of cell suspension were added to the VitroPrime™ Ultra-Low Attachment, U-bottom, 96-Well Plate. The cultures were incubated overnight at 37 °C for spheroid formation. The hydrogel (40 µL) was added to the wells and incubated at room temperature for 15 minutes. A 100 µL of basal medium with supplements was added on top of the hydrogel. The cultures were incubated overnight, and the medium was changed every 2-3 days. After two weeks, the tumoroids were then subjected to Cyto3D® reagent staining and carefully transferred to the VitroPrime™ Spread- Attach 96-Well Plate. Acridine orange (AO) staining indicates the presence of live cells within the tumoroid as shown in green. Propidium iodide (PI; in red) stains for dead cells. Images were taken with the Keyence BZX microscope system at 4X (top) and 10X (bottom) magnifications.

Product	Cat No.
VitroPrime™ Ultra-Low Attachment Plate, U-Bottom, 96-Well, 8 pack	VP-ULA96U-8
VitroPrime™ Ultra-Low Attachment Plate, U-Bottom, 96-Well, 8 pack x 5	VP-ULA96U-8X5

Read the Application Note:
thewellbio.com/evaluating-spheroid-invasion-app-note